

# #22 Kinetics

Objective to find x and y in rate law:

$$\text{Rate} = k[\text{I}^-]^x[\text{H}_2\text{O}_2]^y$$

Note: all solutions are prepared, but show calculations for Q1 (on p 22-2) in your lab report.

You will do part A only.

Collect:

Starch (~5mL) in a test tube

Hydrogen peroxide (~5 mL) in a test tube

Potassium iodide (~50 mL) in a beaker

Sodium thiosulfate (~50 mL) in a beaker

Sulfuric acid (~120 mL) in a beaker

Label all solutions. Some extra beakers have been provided. At the end of the experiment, rinse out the beakers, remove labels, and return.

You will repeat the reaction 3 times, using different amounts of reagents. Follow steps 1-8 (section A) carefully, otherwise the reaction will NOT work.

Time how long it takes for the blue/black color to appear.  
Begin timing when the hydrogen peroxide is added.